

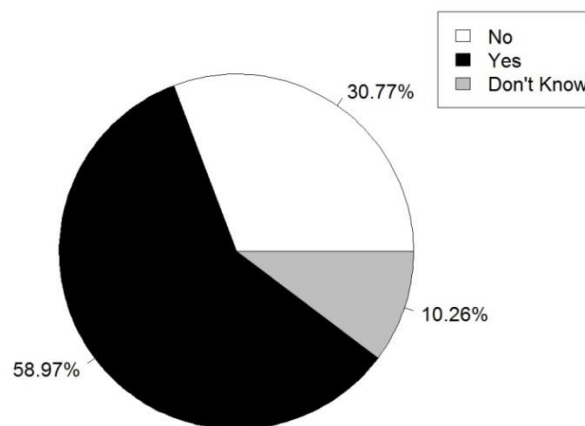
2015 Greater Sage-Grouse Landowner/Producer Survey Results

This survey was developed by the South Dakota Department of Game, Fish and Parks to annually gather local information on factors that could influence sage-grouse abundance (Strategy 2.4 of the Sage-Grouse Management Plan for South Dakota, 2014-2018)

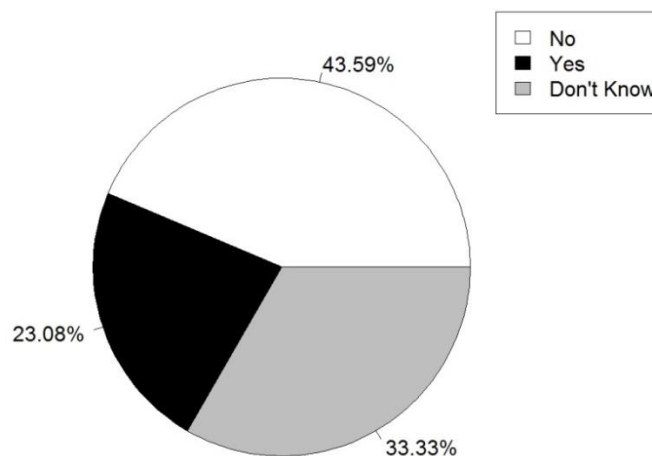
<http://gfp.sd.gov/wildlife/management/plans/docs/SageGrouseManagementPlan.pdf>

Approximately 100 greater sage-grouse landowner/producer surveys were distributed in November 2015 with a return due date of 15 January 2016. We received 39 completed surveys.

Q1. Are there sage-grouse on the land you own/manage?



Q2. Are there active sage-grouse lek(s) on the land you own/manage?



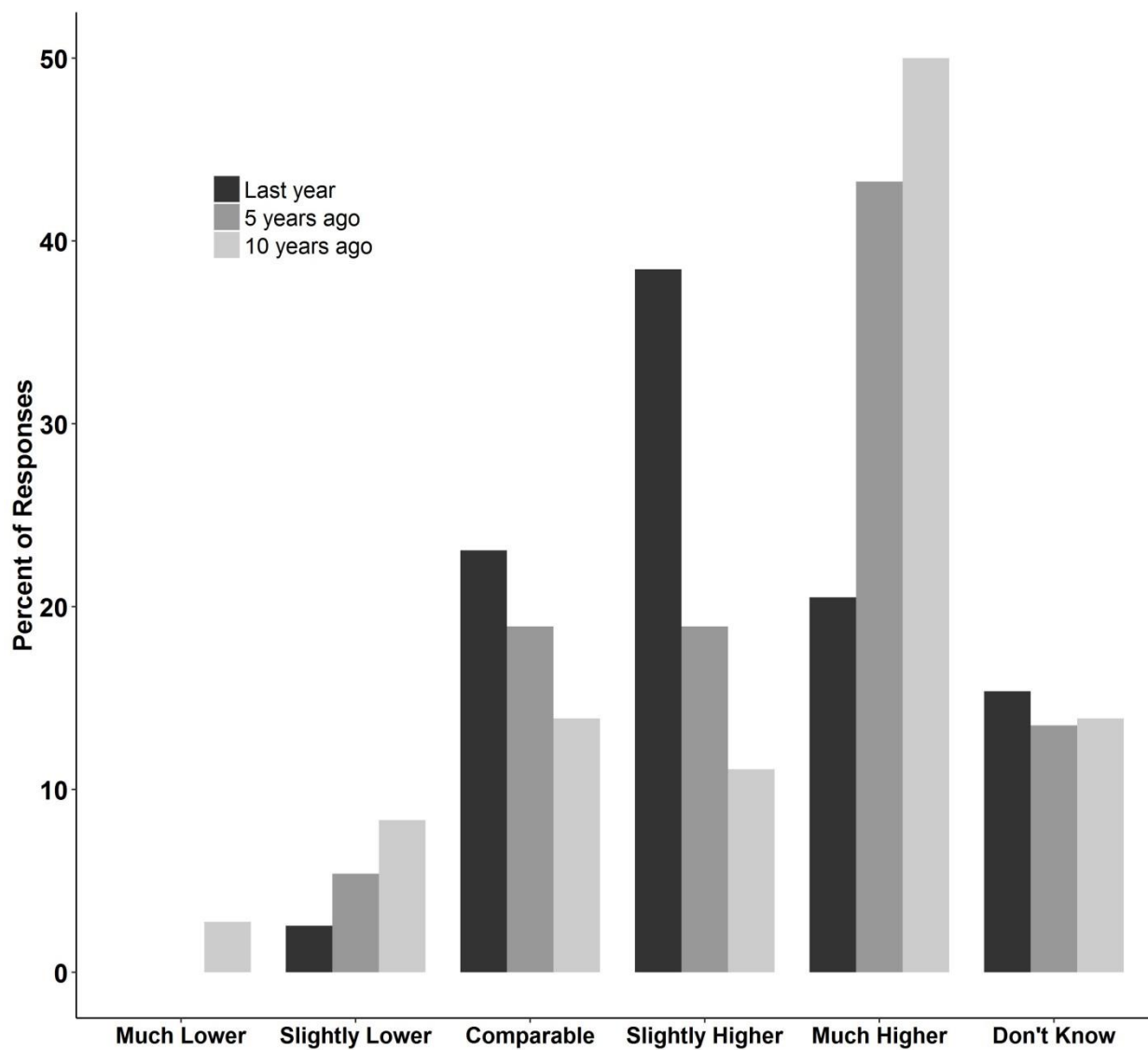
Q3. Were there any local catastrophic events which could have negatively impacted sage-grouse survival or reproduction during the past year? If so, please explain. *Examples could include but are not limited to hail storms, floods, wildfire, etc. Maps or legal descriptions with a depiction of the event are encouraged.*

See Appendix 1 for responses.

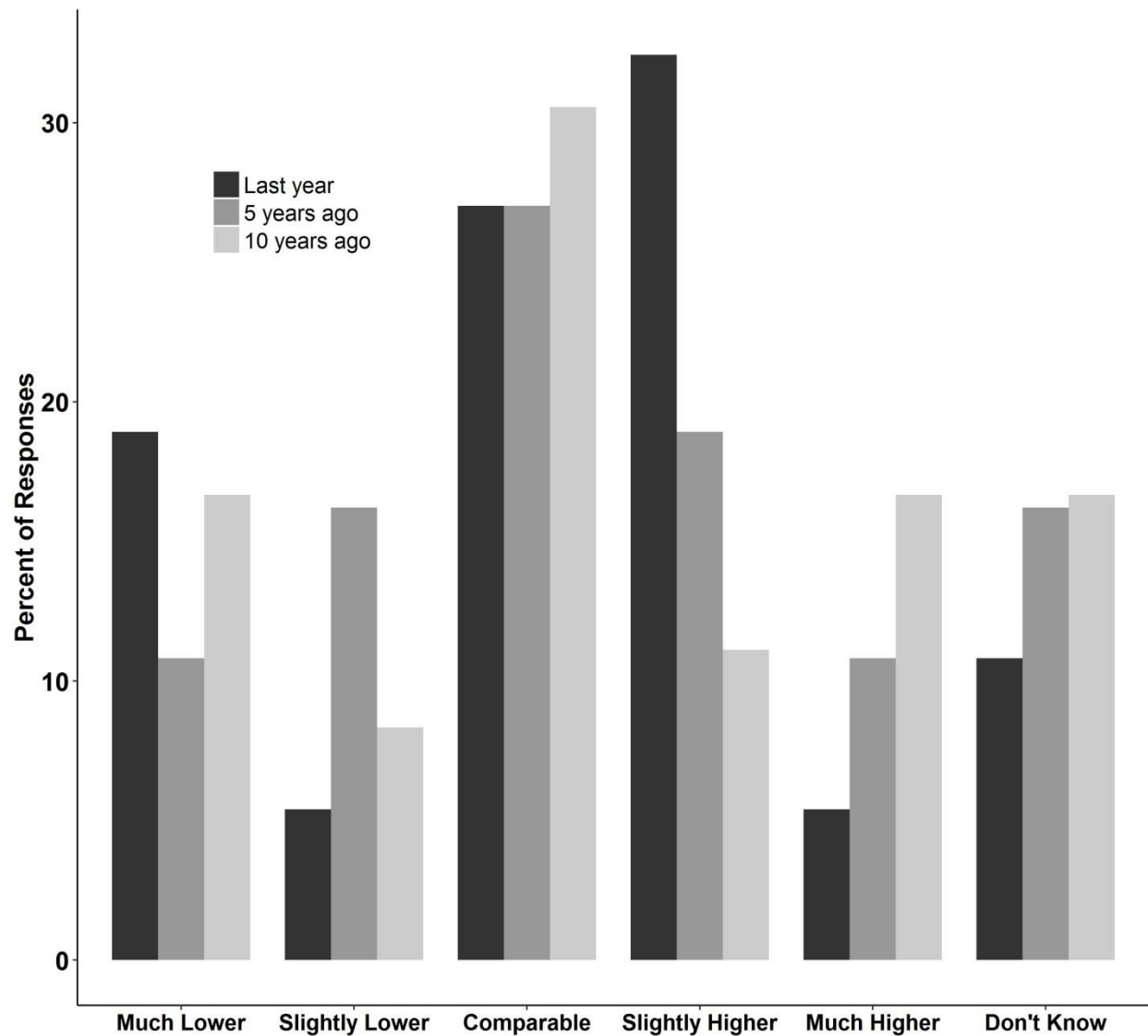
Q4. How would you describe habitat/range conditions during the 2015 growing season? *Please note any unusual flushes of sweetclover, cheatgrass, or other vegetation. Please note if drought conditions were present.*

See Appendix 2 for responses.

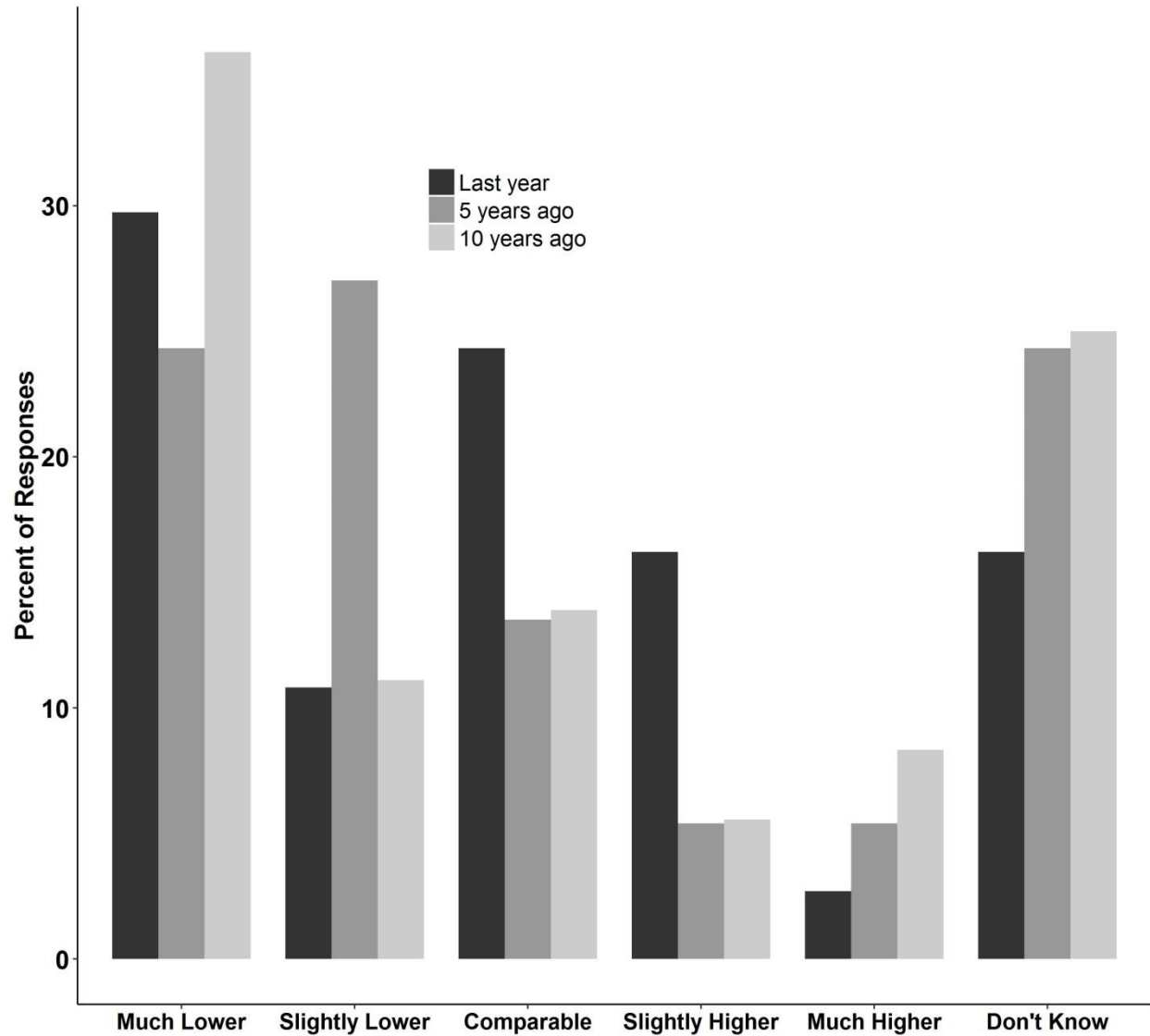
Q5. How would you describe the abundance of **coyote** in 2015 compared to each of the following timeframes?



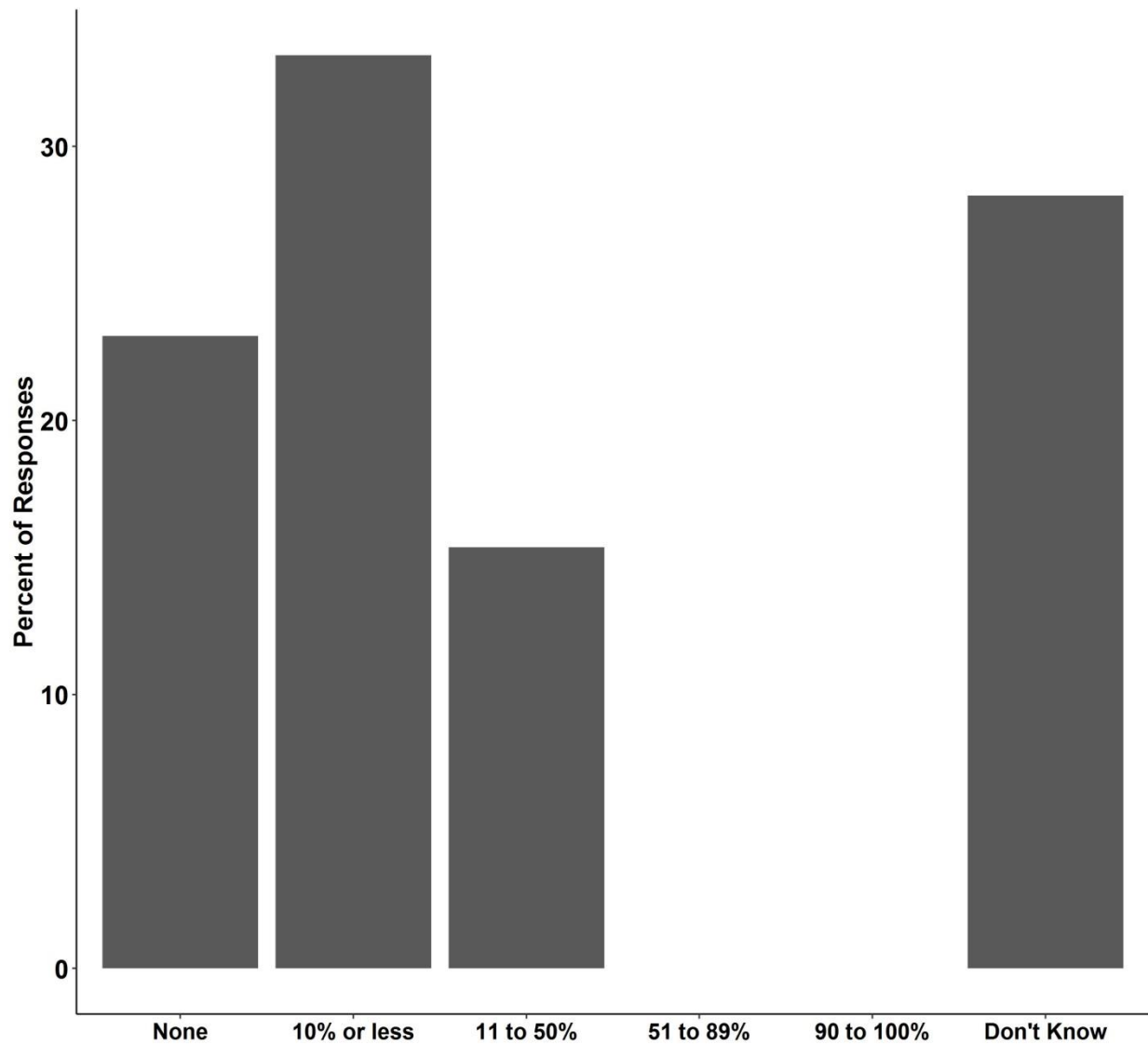
Q6. How would you describe the abundance of **red fox** in 2015 compared to each of the following timeframes?



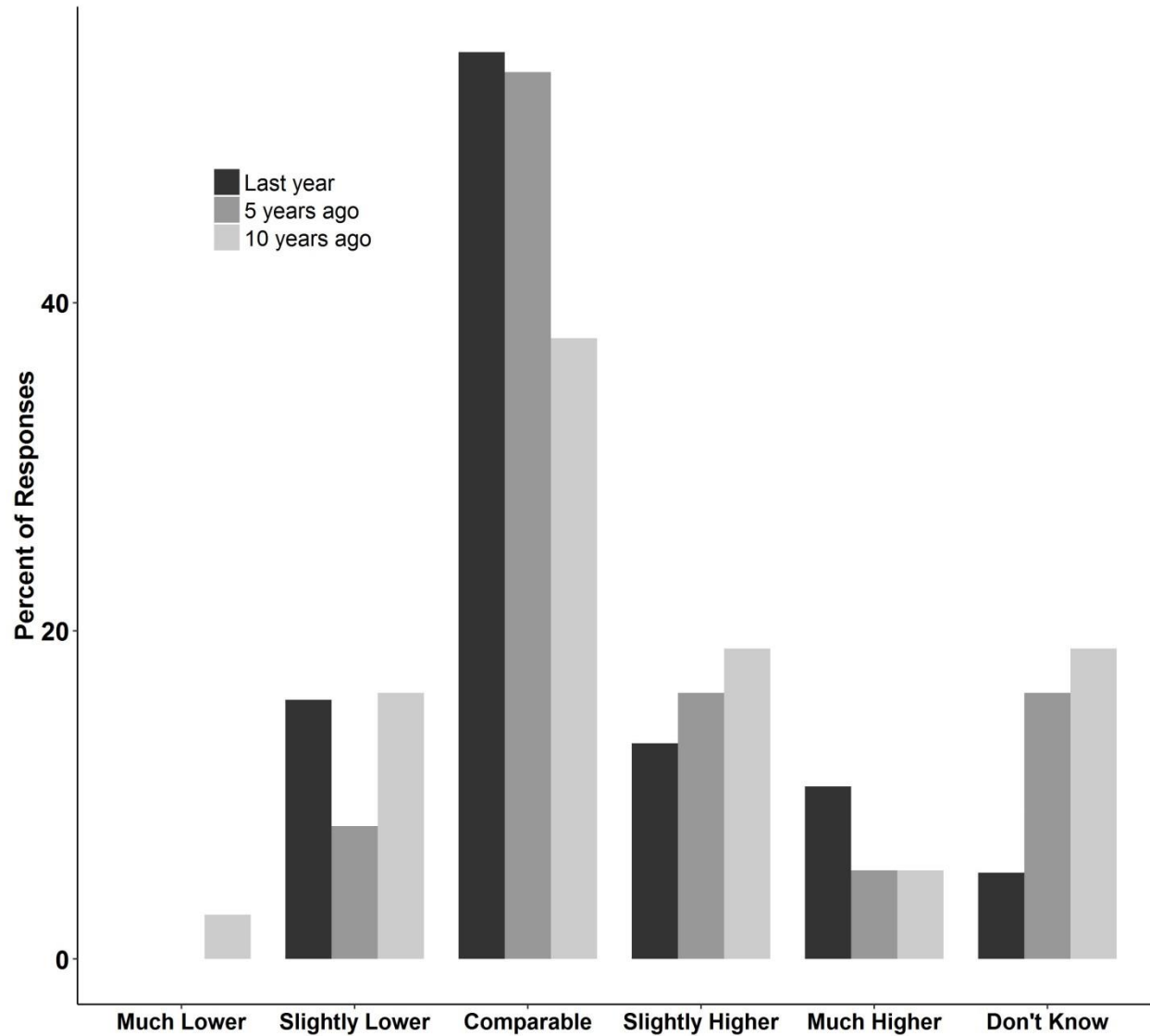
Q7. How would you describe the abundance of **red fox compared to coyote** in 2015 for each of the following time frames?



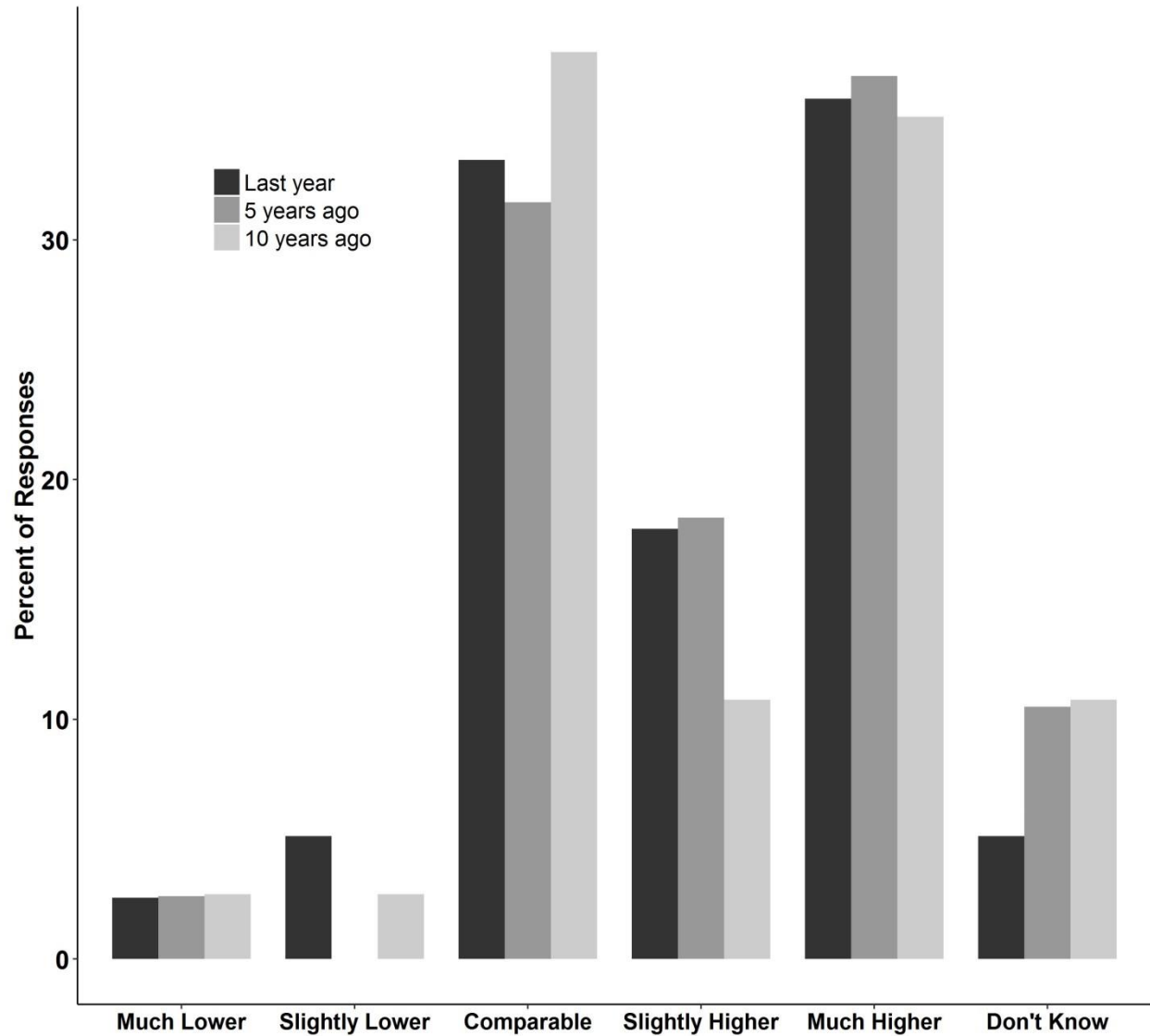
Q8. What percentage of coyote and red fox you observed had mange during the past year?



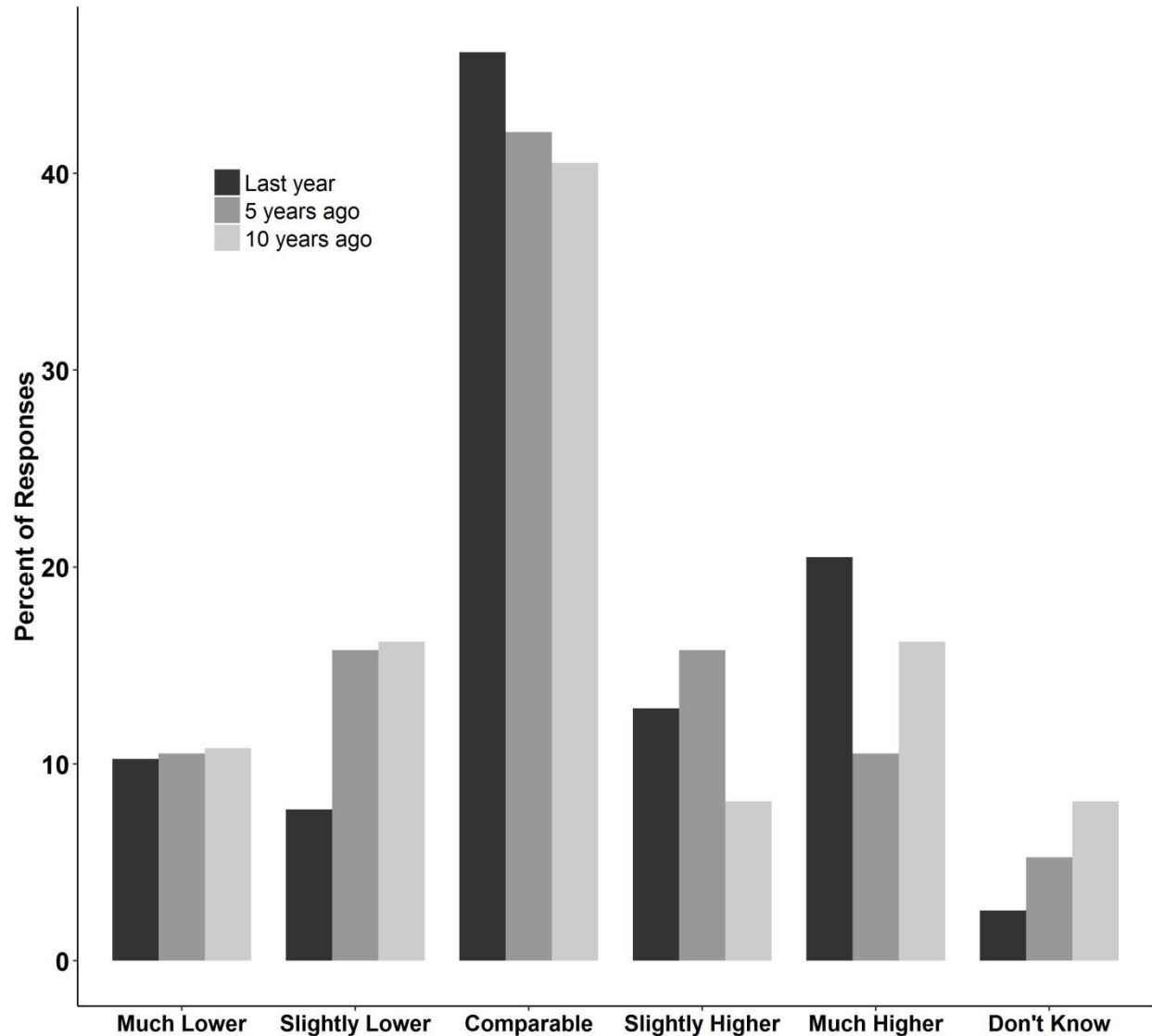
Q9. How would you describe the abundance of **mammalian predators** in 2015 other than red fox or coyote (e.g. raccoon, striped skunk, etc.) compared to each of the following time frames?



Q10. How would you describe the abundance of **raptors** (eagles and hawks) in 2015 compared to each of the following time frames?



Q11. How would you describe the abundance of **prey species** (e.g. jackrabbits, cottontail rabbits and rodents) in 2015 compared to each of the following timeframes?



Q12. Have you observed any activities that could be considered a disturbance to sage-grouse? *Please be specific in regards to frequency, duration, and intensity of events.*

See Appendix 3 for additional responses.

Q13. Have you observed any **ravens** in 2015, and If yes, how many? Did you observe nesting activity?
Ravens are noticeably larger than the American Crow which is common to the area.

See Appendix for 4 additional responses.

Appendix 1. Question 3

2015-01: No
2015-02: No
2015-03: No
2015-04: No
2015-05: No
2015-06: No
2015-07: None
2015-08: 2014 and years prior had hail that would have had devastating effect on sage-grouse population
2015-09: No
2015-10: No
2015-11: Hail
2015-12: No
2015-13: no
2015-14: Maybe the Atlas blizzard
2015-15: No
2015-16: N/A
2015-18: None
2015-19: No
2015-21: Fire- 300 acres next to lek area
2015-22: We have had a prairie fire go through the area. We have had severe snow storms. We have had hail as well.
2015-24: No
2015-26: No
2015-27: No
2015-28: Storm atlas made quite a difference.
2015-30: No
2015-31: Not that I know of
2015-32: No
2015-33: No
2015-34: Year before last we had such a severe hailstorm on buildings and south- just cleaned it to the ground. Window, wind shields and animals destroyed. [Last sentence omitted].
2015-36: We had a bad blizzard May 9th. It killed calves, I'm sure it was tough on the grouse. Also the hawks and eagles are also really bad in our area
2015-38: No
2015-39: No

Appendix 2. Question 4

2015-01: Excellent

2015-02: Good

2015-04: Looks good to me. We had good rains and grass looks good. No clover this year.

2015-05: Very good conditions in the spring. Very dry in July, then good in the fall.

2015-06: Good- Plenty of moisture and abundant grass early spring. Dry summer

2015-07: Great. Lots of cover. Big patches of sweetclover for the second year in a row.

2015-08: No drought but 2014 and 2015 had a lot of sweet clover

2015-11: Average

2015-12: Excellent

2015-13: Lot of sweetclover

2015-14: We received above normal moisture this year and there is better than average cover for the birds this year

2015-16: Normal

2015-17: The sharp-tail grouse have had the best hatch I have seen in many years

2015-18: Good rain. Good grass cover

2015-19: Good

2015-20: Average year

2015-21: Very good - lots of clover lots of foxes not so many badgers quite a few raccoons and skunks. Lots of rabbits

2015-22: Range conditions during 2015 would be rated nearly ideal

2015-23: Average. Less in early spring. Fairly good in late may

2015-24: No drought. Excellent growing season

2015-26: Good

2015-27: Good

2015-28: Range is in very good to excellent condition.

2015-29: Good

2015-30: Very dry spring

2015-31: Average or above

2015-32: Conditions were excellent due to abundant rain and forage growth

2015-33: Good

2015-34: No moisture for 2 months in the summer

2015-35: Rainfalls resulted in above average forage production

2015-36: Had a lot of sweetclover and got pretty dry by the end of summer

2015-37: Was excellent

2015-38: Average

2015-39: Clover was present along with the grass

Appendix 3. Question 12

2015-01: No

2015-02: No

2015-03: No

2015-04: No

2015-05: No

2015-06: No

2015-07: None

2015-08: On our walk-in I ran across hunter that was hunting sage-grouse and wondered at the time with the numbers on the decline, why there would be a season? This was about three years ago

2015-09: No

2015-11: Eagles and hawks

2015-12: No

2015-13: No

2015-14: No

2015-15: No

2015-16: N/A

2015-17: None

2015-18: None

2015-19: N/A

2015-20: The abundance of coyotes. If you don't get control of the coyotes there won't be any grouse, deer, or other animal species.

2015-21: No

2015-22: I see an overabundance of fox and coyote and winged predators

2015-24: Yes. The reason I think that the sage grouse are declining is because of all of the avian predators. I have never seen so many owls, hawks, falcons, and eagles. Eagles are also killing a lot of our antelope.

2015-27: No

2015-28: No

2015-30: No

2015-32: No

2015-33: No

2015-34: Well if voles eat eggs like they eat tomatoes, we are in TROUBLE. We hoping that the coyotes were eating them but nothing is keeping up to them (voles).

2015-36: The hawks and eagles are thick

2015-37: No

2015-38: No

2015-39: No

Appendix 4. Question 13

2015-01: No
2015-02: Not sure
2015-03: No
2015-04: No
2015-05: No
2015-06: Yes-no nesting
2015-07: None
2015-08: Don't know
2015-09: No
2015-11: 3 Ravens - no nesting observed. Vultures
2015-12: No
2015-13: No
2015-14: No
2015-15: No
2015-16: No
2015-17: During haying season hawks were the most ever seen. They and owls have been feeding on short-tailed black voles. They are high infestation in hay fields
2015-18: No
2015-19: No
2015-20: No
2015-21: Some on the roads
2015-22: Yes definitely more the last few years. I have not observed any nesting
2015-24: Not that I've notice
2015-26: I thought crows are larger than ravens?
2015-27: No
2015-28: Yes a few. Unknown for nesting activity.
2015-30: No
2015-32: No
2015-33: No
2015-34: Have not observed Ravens and we don't want them.
2015-36: No
2015-37: No
2015-38: Don't know
2015-39: never seen any